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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,577	10/21/2005	Toshiyuki Kanno	FUJI:344	4816

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EXAMINER
KASHNIKOW, ERIK

ART UNIT	PAPER NUMBER
1794	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/532,577	KANNO ET AL.	
	Examiner	Art Unit	
	ERIK KASHNIKOW	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,7-15,17-19 and 21-26* is/are pending in the application.

4a) Of the above claim(s) *13-15,17-19 and 21-26* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5 and 7-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 3-5 and 7-12 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically because the word “absorbed” used in the first claim, however, the specification only provides support for "adsorbed".

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims1, 3-5, 8, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aida et al. (EP 0 405 982) in view of Funayama et al. (5,128,286) and Nishihara et al. (US 6,433,089) with dictionary.com used for evidentiary value

(http://dictionary.reference.com/browse/impregnate and http://dictionary.reference.com/browse/absorb).

3. In regards to claim 1 Aida et al. teach a thermoplastic resin which incorporates inorganic filler, flame retardant agent (page 1 lines 3-8), glass fiber (reinforcing fibers)(page 5 lines 23-25) and a cross linking agent in an amount of 0.01-7 parts per weight per 100 parts of the thermoplastic polymer composition (claim 2). Aida et al. teach that the resin is cross linked by a heat treatment (claim 1). Finally Aida et al. teach the resin can is molded into various shapes (page 3 lines 26-30).

4. In regards to claim 3 Aida et al. teach that at least one cross linking agent is used, which means that more than one may also be used (page 5 lines 7-8).

5. In regards to claim 8 Aida et al teach that the inorganic filler be present in amounts of 5-200 parts per 100 parts of the resin composition, this relates to 4.75-66.66% of the entire resin composition, which overlaps Applicant's range (page 5 lines 31-35).

6. In regards to claim 10 Aida et al. teach that the resin composition contains a flame retardant in amounts of 4.75-66.6% by weight of the entire resin composition (page 5 line 36 page 6 line 6).

7. In regards to claim 12 Aida et al. teach that their invention may be used for insulating of electrical wires (page 3 lines 25-30).

8. As stated above Aida et al. teach molded articles which contain a cross linking agent as well as a multitude of inorganic fillers, however they are silent regarding the specific cross linking agents of Applicants invention.

9. In regards to claim 4 Aida et al. teach that the primary resin in the molded article may be a polyamide (page 3 line 54).

10. In regards to claims 4 Funyama et al. teach a cross linking agent which has a main skeleton which comprises an N element containing cyclic compound, this is the borazine cross linking agent shown as compound (iii) (column 7 lines 5-18).

11. In regards to claim 15 Funyama et al. teach that the R4 components of the borazine may be hydrogens or alkenyl groups. While they are silent regarding the specific examples of the Applicant's side chains it would be obvious to one of ordinary skill in the art at the time of the invention to pick the side chains using the functional groups listed by Funyama that best cross links the desired compounds.

12. It would be obvious to one of ordinary skill in the art at the time of the invention to modify the Invention of Aida et al. with that of Funyama et al. because the invention of Aida et al. which offers a molded product that is superior in moldability without loss of mechanical strength (page 3 lines 17-22) would benefit from the boron compounds which improves mechanical strength at high temperatures (column 3 lines 5-10).

13. As stated above Aida et al. and Funyama et al. teach the molded articles of applicant's invention however they are silent regarding absorbing the cross linking agents onto an inorganic filler.

14. Nishihara et al. teach molded articles (column 8 lines 34-38) which contain both inorganic fillers and cross linking agents (column 6 lines 44-58 and column 7 lines 26-27). Nishihara et al. further teach it is known in the art to impregnate non melting fillers with cross linking agents (column 7 lines 27-30). Examiner points out that impregnate

and absorb have similar definitions as shown by http://dictionary.reference.com/browse/absorb and http://dictionary.reference.com/browse/impregnate specifically with regards to filling interstices with a substance.

15. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Aida et al. and Funyama et al. with that of Nishihara et al. because the invention if Nishihara et al. offers improved cross linking efficiency (column 7 lines 31-33).

16. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aida et al. (EP 0 405 982) in view of Funayama et al. (5,128,286) and Nishihara et al. (US 6,433,089) as applied to claim 1 above and in further view of Marzocchi (3,888,645).

17. As stated above Aida et al. teach molded articles which contain a cross linking agent as well as inorganic fillers, including glass fibers included in amounts ranging from 4.75-66.6% by weight of the entire resin (page 5 lines 19-35) however they are silent regarding coating the glass fibers with a resin.

18. Marzocchi teaches a method of treating glass fibers used as fiber reinforcement. Marzocchi teaches that the glass fibers are coated with a resin (claim 1).

19. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the article of Aida et al. with the glass fibers of Marzocchi et al. because the article of Aida et al. which has a product that is superior in moldability

without loss of mechanical strength (page 3 lines 17-22) would benefit from the improved abrasion resistance (column 1 lines 3-7) of the glass fibers of Marzocchi.

20. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aida et al. (EP 0 405 982) in view of Funayama et al. (5,128,286) and Nishihara et al. (US 6,433,089) as applied to claim 1 above and in further view Usuki et al. (US 4,889,885).

21. As stated above Aida et al. teach molded articles which contain a cross linking agent as well as inorganic fillers, including clay in ranges from 4.75-66.66% by weight (page 5 lines 19-35) but are silent regarding the clay being a stratified clay.

22. Usuki et al. teach a composite material with high mechanical strength and heat resistance (column 1 lines 7-10). Usuki et al. teach that stratified clay is used as an inorganic portion of the composite material (column 7 lines 23-30).

23. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the article of Aida et al. with the material of Usuki et al. because the article of Aida et al. which has a product that is superior in moldability without loss of mechanical strength (page 3 lines 17-22) would benefit from the high mechanical strength and heat resistance (column 1 lines 7-11) of the material of Usuki et al.

24. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aida et al. (EP 0 405 982) in view of Funayama et al. (5,128,286) and Nishihara et al. (US 6,433,089) as applied to claim 1 above and in further view Tanaka et al. (JP 11-180990).

25. As stated above Aida et al. teach molded articles which contain a cross linking agent and inorganic fillers as well as phosphorous based flame retardants (page 5 lines 5—53), however they are silent regarding monofunctional phosphorus based flame retardants.

26. Tanaka et al. teach specific organophosphorus compounds, and specifically mention alkenly phosphinate compounds as preferred examples as flame retardants (Claim 1).

27. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the article of Aida et al. with the material of Tanaka et al. because the article of Aida et al. which has a product that is superior in moldability without loss of mechanical strength (page 3 lines 17-22) would benefit from the economic benefits of ease of manufacturing and separation refinement of material of Tanaka et al ([0026]).

Response to Arguments

28. Applicant's arguments, see arguments, filed 11/02/08, with respect to the objection of the abstract have been fully considered and are persuasive. The objection of the abstract has been withdrawn.

29. In regards to Applicant's arguments regarding the cross linking agent being absorbed onto the inorganic filler, Examiner has modified the rejection to meet the new limitation.

30. In regards to Applicant's arguments that the present specification provides unexpected or surprising results Examiner points out that the specification compares

resin molded article wherein cross linking agent is first adsorbed on the inorganic filler (example 1) with resin molded article where cross linking agent is not first adsorbed on the inorganic filler (comparative example 2). It is shown that the resin molded article of the present invention is superior in terms of appearance, heat resistance, etc. However, the data is not persuasive given that there is not proper side-by-side comparison between the examples since they each use different cross linking agent. Further, the data is not commensurate in scope with the scope of the present claims which currently recite that the cross linking agent is "absorbed" on the filler.

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erik Kashnikow
Examiner
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/Callie E. Shosho/
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